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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,342	05/19/2000	Jouni Rapakko	460-009420-US(PAR)	9989

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EXAMINER

GUBIOTTI, MATTHEW P

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/575,342

Applicant(s)

RAPAKKO ET AL

Examiner

Matthew Gubiotti

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05/19/2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION**Content of Specification**

1. The content of the specification is in the incorrect format. It is strongly suggested that the applicant review the formatting guidelines detailed below for information regarding proper formatting. A revised copy of the specification is required before an allowance is to be considered.

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.
- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This

Art Unit: 2124

statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."

- (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily

Art Unit: 2124

available publication which adequately describes the subject matter.

- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

2. The claims are objected to because the lines are crowded too closely together, making reading and entry of amendments difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Art Unit: 2124

Specification

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7

Claim 7 recites the limitation "the expansion card" in Line 16. There is insufficient antecedent basis for this limitation in the claim. The claim will be treated below by the examiner as reading ``an expansion card''.

Claim 12

Claim 12 recites the limitation "the wireless communication device" in Line 21. There is insufficient antecedent basis for this limitation in the claim. This claim has not been further treated.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

Art Unit: 2124

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Settu (US Pat. No. 6,374,353) as applied to further in view of Garney (US Pat. No. 5,319,751).

Claim 1

Settu shows a method for loading user interface software from a boot device (col.1, li.53) comprising a basic module (col.1, li.51-55) and a user interface module (col.1, li.55-57) wherein in the first phase includes loading and start-up of the basic module (col.3, li. 48-60) and the second phase includes loading and executing the user interface module (col.3 li.60 to col.4 li. 14). Settu does not expressly disclose conducting the second phase of software loading when an expansion card is coupled to an electronic device. Settu does teach a method for event-driven loading of a second software module to reduce the time required to boot an information processing apparatus (col.1, li.45-65).

Garney teaches the insertion of a expansion card as an event triggering the dynamic reconfiguration of system resources in an information processing system (col.3, li.19-20). Garney teaches this art as a means of efficiently allocating system resources in loading a software program, specifically a device driver (col.4, li.32-8). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to trigger the loading of a second software module as taught by Settu with the

Art Unit: 2124

card insertion event of Garney. The would have been obvious because a specific triggering event resulting in the subsequent allocation of system resources, such as the card insertion taught by Garney, would reduce the initial boot time of a computing device as taught by Settu (col.1, li.31-40).

Claim 2

Settu further teaches a method wherein the first module controls the execution of the second phase (col. 1, li.62-64).

Claim 3

Settu further teaches a method wherein a device driver interfaces with an application program interface which communicates with said basic module wherein the loading and startup of the user interface module is initiated from the basic module (col. 3, li.61 to col. 4, li.7).

Claim 4

Settu does not expressly disclose wherein coupling an expansion card to a electronic device an interrupt signal is produced and information on the coupling is transmitted to a device driver. Garney additionally teaches a method wherein coupling an expansion card to a electronic device an interrupt signal is produced and information on the coupling is transmitted to a device driver (col.8, li.21-25). This is shown as a means of initializing memory resource allocation by the system (col.8, li.29-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the

Art Unit: 2124

loading of a user interface module as taught by Settu with the interrupt signal generation taught by Garney. It would have been obvious because an interrupt signal produced by a card insertion, as taught by Garney above, would reduce the initial boot time of a computing device as taught by Settu (col.1, li.45-50) by notifying a system of the appropriate time to allocate system resource for a related application.

Claim 5

Settu does not expressly disclose wherein the decoupling of an expansion card halts processing of a user interface module without interrupting the basic module. Garney teaches a method wherein the decoupling of the expansion card halts processing of a secondary software module without interrupting the basic module (col.4, li.26-31). This is shown as a means of effectively allocating system memory resources(col.8, li.29-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the dual step loading of a user interface module as taught by Settu with the method of halting processing of the secondary software module without interrupting the basic module taught by Garney. By not interrupting the basic module, Garney allows for an efficient means of restarting a secondary module from a basic module on reinsertion of a expansion card (col.14, li.25-42). It would have been obvious to modify Settu with the method of Garney, because it would provide an efficient means of configuring system resources to reduce the initial boot time of a

Art Unit: 2124

computing application as suggested by Settu (col.1, li.34-40) and taught by Garney (col.4, li.22-3).

Claim 6

Settu does not expressly disclose a method wherein memory is allocated for a user interface module when said module is loaded and said memory is deallocated when an expansion card is removed from an electronic device. Garney teaches a method wherein memory is allocated for a user interface module when said module is loaded (col.4, li.4-7) and said memory is deallocated when an expansion card is removed from an electronic device (col.4, li.25-31). This is shown as a means of efficient memory resource allocation by a computer system (col.8, li.29-41).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method of Settu as described above with the method of dynamic memory allocation taught by Garney. It would have been obvious to modify Settu in this way, because Garney provides a efficient means of configuring system memory resources to reduce the burden on a computing system at boot time as taught by Settu (col.10, li.36-9).

Claims 7-9

These are the apparatus claim corresponding to the method of claims 1-3, respectively. The claims are rejected under the same arguments as cited above, with Column 2, Line 1 referencing the apparatus (information process apparatus).

Art Unit: 2124

Claim 10-11

These claims represent an apparatus performing a method corresponding to the method of claim 3. The claim is rejected under the same arguments as cited above, with Column 2, Lines 1, and 10-11 referencing the apparatus (an information process apparatus with a OS loading and initialization processing module).

Claim 13

Settu further teaches an apparatus for performing the method of claim 1 wherein the electronic device is a data processor (col.2, li.1).

Claim 14

Settu further teaches an storing means for performing the method of claim 1 (col.2, li.2).

Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew Gubiotti whose telephone number is (703) 305-8285. The examiner can normally be reached on M-F, 8-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Art Unit: 2124

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

MPG

November 25, 2002



TUAN Q. DAM
PRIMARY EXAMINER